

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) Electric compressor comprising:

a single-phase induction motor comprising a stator and a rotor;

a compressing mechanism driven by the motor; and

a hermetic container for accommodating the motor and the compressing mechanism and for pooling lubricant,

wherein the compressing mechanism includes:

a shaft having a main shaft and a sub-shaft, the main shaft comprising a first section having a first diameter and a second section having a second diameter smaller than the first diameter;

a cylinder for forming a compressing chamber;

an annular lubricant groove having an inner rim and an outer rim; and

a bearing for supporting the main shaft, the bearing defining in part the outer rim of the annular lubricant groove,

wherein the shaft includes:

a circumferential notch defining in part the inner rim of the annular lubricant groove;

a centrifugal pump opening into the lubricant;

a forward leading groove engraved on an outer wall of the main shaft, and having a first end communicating with the centrifugal pump and a second end

~~opening to an the inner rim of the annular lubricant groove provided between an upper end of the main shaft and an upper end of the bearing;~~

a reverse leading groove having a lead directing in an opposite direction to that of the forward leading groove, and having a first end communicating with the centrifugal pump via the second section of the shaft, and a second end opening to the inner rim of the annular lubricant groove; and

a vertical hole bored in the sub-shaft and having a first end communicating with the outer rim of the annular lubricant groove, and a second end opening into the hermetic container, ~~and~~

~~wherein the annular lubricant groove has an inner rim and an outer rim on the upper end of the main shaft, and each of the second end of the forward leading groove and the second end of the reverse leading groove opens to the inner rim of the annular lubricant groove, communicating with the annular lubricant groove through the opening.~~

2. (Previously Presented) The electric compressor of claim 1, wherein the reverse leading groove is formed at an intermediate section of the shaft.

3. (Previously Presented) The electric compressor of claim 1, wherein a cross sectional area of the reverse leading groove is smaller than that of the forward leading groove.

4. (Previously Presented) The electric compressor of claim 1, wherein a lead of the reverse leading groove is greater than that of the forward leading groove.

5. (Original) The electric compressor of claim 1, wherein the vertical hole slants with respect to a shaft center of the main shaft such that an upper section of the vertical hole slants outward.

6. (Previously Presented) The electric compressor of claim 2, wherein a cross sectional area of the reverse leading groove is smaller than that of the forward leading groove.

Application No.: 10/552,532
Amendment Dated: January 28, 2010
Reply to Office Action of: November 2, 2009

MAT-8748US

7. (Previously Presented) The electric compressor of claim 2, wherein a lead of the reverse leading groove is greater than that of the forward leading groove.

8. (Previously Presented) The electric compressor of claim 1, wherein an entire rounding section of the upper end of the bearing is chamfered and the annular lubricant groove is formed between the chamfered section and the main shaft.